

West Nile Virus Adult Mosquito Control

Frequently Asked Questions

What is adult mosquito control?

Adult mosquito control is technique used by the County of San Diego Department of Environmental Health to control adult mosquitoes that carry West Nile virus (WNV). The County has been using environmentally-friendly bacteria in known mosquito breeding areas. The bacteria kill mosquito larvae, but can't control adult mosquitoes. Adult mosquito control is different because it uses an ultra-low volume (ULV) spray to kill adult mosquitoes. ULV nozzles spray a fine mist of insecticides that kill adult mosquitoes when they fly through the mist. ULV spraying is done only in areas that are most at risk for West Nile virus outbreaks, and will be conducted by certified and licensed technicians.

Why do we need to use ultra-low volume (ULV) spray?

The County of San Diego Vector Control Program is ULV spraying specific areas to kill adult mosquitoes and prevent West Nile virus from spreading. The decision to spray an area is based on confirmation that West Nile virus activity exists at a level that poses a threat to human health. ULV spraying will be confined to areas most at risk for WNV transmission.

When is ultra-low volume (ULV) spraying done?

West Nile virus ULV applications will be done between sunset and sunrise. These are the times when adult mosquitoes that can transmit WNV are most likely to be out and biting. The Vector Control Program may spray affected areas up to three nights in a row. Spraying will not be done if it is raining or windy. ULV spraying is scheduled for up to three consecutive nights to eliminate mosquitoes that were not exposed to the ULV spray the previous nights or had not yet hatched.

What are the benefits of adult mosquito control?

Adult mosquito control works very quickly to reduce the numbers of adult mosquitoes by killing adult mosquitoes on contact. This can often provide immediate relief from mosquitoes, thereby preventing the spread of disease.

What chemicals will be used?

Pyrethrin 25-5 Public Health Insecticide (EPA registration no.: 432-1050) MSDS #102000004841

This insecticide is approved by the EPA for adult mosquito control.

How effective is ultra-low volume (ULV) spraying at reducing the number of adult mosquitoes?

The effectiveness depends on several factors including the kinds of mosquitoes that are present, weather conditions, frequency of application and the number of homes on a street in a community.

During optimal conditions, ultra-low volume spraying can reduce adult mosquito numbers up to 50% in the area treated.

Why might I see mosquitoes on my street the day after ultra-low volume (ULV) spraying was done?

There are several reasons why you might see mosquitoes the day after ULV spraying. The small droplets of insecticide cannot reach all mosquitoes, so you could be seeing ones that did not come into contact with the insecticide. Some of the mosquitoes you see may have just become flying adults. Also, different species of mosquitoes are active at different times of the day. The WNV ULV spraying is done at night because the mosquitoes that carry WNV are active at that time.

Will the insecticides that are ULV sprayed kill all types of mosquitoes that can transmit West Nile virus?

Yes. The insecticides target a variety of mosquitoes that can transmit West Nile virus as well as other diseases.

What is my risk of exposure with ultra-low volume (ULV) spraying?

The risks to the public and the environment are very low. Mosquito insecticide sprays are ultra-low volume (ULV) sprays. ULV sprays use small amounts of insecticide for the area treated. Usually, this means that less than 5 ounces of insecticide are used for every acre of land being sprayed. This reduces the risk to people and the environment.

Can some people experience health effects from ultra-low volume (ULV) spraying?

Most people will not experience any health effects after ULV spraying. Some people may have short-term symptoms such as eye, skin, nose and/or throat irritation, breathing problems, and nausea. Contact your health care provider if you are experiencing health problems for any reason.

Can ULV spraying harm other animals or wildlife?

The US Environmental Protection Agency (EPA) has determined that the chemicals used in ULV spraying do not pose an unreasonable risk to birds or mammals if used according to directions. However, it can be toxic to fish and bees. County technicians take precautions so that the insecticide does not reach sensitive environments such as wetlands and lagoons. Also, the insecticide degrades within 30 minutes in the environment, minimizing its environmental effects. If you have a fish pond, be sure to cover it to protect your fish.

Should I cover the swimming pool in my yard?

ULV insecticides break down quickly in sunlight so no special precautions are recommended for outdoor swimming pools. However, if a pool is not being chlorinated or filtered, it should be covered or drained. Any standing body of water is a potential breeding ground for mosquitoes.

Will ULV spray hurt the paint on my car?

No. Mosquito insecticides are applied as ultra-low volume (ULV) sprays, which minimize exposure and risk to people and the environment, including the paint on your car. For more information, refer to the EPA's website at:

https://www3.epa.gov/pesticides/chem_search/ppls/000432-01050-20130509.pdf

How will I know if ULV spraying is going to take place in my neighborhood?

The County of San Diego will provide press releases and public notifications before any ULV treatments. Check the SDVector.com web site for treatment schedules and maps. Additional information is available by calling the County of San Diego Vector Control Program at (858) 694-2888.

What kinds of precautions should I take when ULV spraying is scheduled for my street?

You can reduce your exposure to the insecticide by staying indoors during spraying. The droplets will dissolve after about 20 minutes.

Other things that you can do to reduce exposure are:

- Keep windows closed and fans off. Shut off air conditioners unless they have a setting for re-circulating indoor air. If it is very hot weather, make sure you open the windows and/or turn fans and air conditioners back on about 30 minutes after the truck passes through your neighborhood.
- Rinse homegrown fruits and vegetables with water as you would typically do before cooking or eating them.
- Keep pets indoors during ULV spraying.
- Cover your fishponds.
- If skin and/or clothes or other items are exposed to the ULV insecticide, wash with soap and water.
- If the ULV spray gets in your eyes, immediately rinse them with cool, clean water for 15 minutes, and call your health care provider.
- Have children wait at least 30 minutes after the ULV treatment before playing with equipment that has been exposed to the ULV spray.

Who can I call if I have more questions?

For more information about West Nile virus, mosquito control, or ultra-low volume spraying please visit our website at www.SDVector.com. You may also call the County of San Diego Vector Control Program at (858) 694-2888 or email us at: vector@sdcountry.ca.gov.

What are some other sources of information on West Nile virus and pesticides?

You may find additional information at your local library or by searching the following websites.

For more information about pesticides:

- U.S. Environmental Protection Agency, www.epa.gov/pesticides/factsheets

- National Pesticides Telecommunications Network (NTPN), <http://ace.orst.edu/info/nptn/wnv/>
- National Institute for Occupational Safety and Health (NIOSH), Center for Disease Control and Prevention (CDC), <http://www.cdc.gov/niosh/topics/pesticides/>
- Center for Disease Control and Prevention, Division of Vector-Borne Infectious Diseases, West Nile Virus, <http://www.cdc.gov/ncidod/dvbid/westnile/qa/pesticides.htm>
- California Department of Public Health, West Nile virus website, <http://www.westnile.ca.gov/>

What can I do to prevent getting WNV?

The best prevention is to avoid being bitten by mosquitoes. When outdoors, especially at dawn and dusk, wear long-sleeved, light colored shirts and pants. Apply insect repellent containing DEET, picaridin, and lemon of eucalyptus oil or IR3535 to exposed skin.

Where are the infected mosquitoes near Los Peñasquitos lagoon coming from?

Given the species of the mosquitoes and the results of other traps in the area, the Los Peñasquitos lagoon is the most likely source of these mosquitoes. Steps are being taken to reduce the numbers of mosquitoes breeding in the lagoon.

Has WNV been found near the lagoon before?

This is the first time that WNV has been found in mosquitoes caught around Los Peñasquitos lagoon, however in 2015 chickens in one of the County's "sentinel" chicken flocks near the lagoon tested positive for WNV late in the season. WNV has been found in mosquitoes in several locations in the County, with increased prevalence in 2015. Current and previous WNV detections in the County can be found

here: http://www.sandiegocounty.gov/content/sdc/deh/pests/wnv/wnv_activity_update/west-nile-virus-activity-in-san-diegoupdated-page.html

What about the lagoon mouth being blocked?

In addition, the County is monitoring progress of the Lagoon Foundation to open of the mouth of the lagoon. The lagoon mouth often gets blocked with silt and sand during winter months and is opened to the ocean in the spring by managers of the lagoon to increase tidal action. The increased salinity from the ocean makes the lagoon water uninhabitable for mosquitoes. These actions will continue throughout the mosquito season (May-October).

Will the County be using a pesticide that kills adult mosquitoes?

The VCP only uses pesticides to kill adult mosquitoes when there is an elevated risk of disease transmission to people, and during appropriate weather conditions. Data collected from traps near the lagoon this week and last week show an elevated risk. Also, weather conditions for the use of pesticide will be close to ideal the week of May 16. Based on this combination of factors, the VCP will likely begin using a pesticide to reduce the number of adult mosquitoes in this area early on Wednesday morning.

The VCP will use Pyrenone 25-5 Public Health Insecticide (EPA registration no.: 432-1050) MSDS #102000004841. This insecticide is approved by the EPA for adult mosquito control.

How and where will the pesticide be released?

The pesticide will be released from special ultra-low-volume equipment mounted on a truck. Weather permitting, spraying is scheduled to take place between 3 a.m. and 5 a.m. Wednesday in the following areas: communities north of Los Peñasquitos Lagoon including the areas between Seapoint Townhomes and Pointe Del Mar bounded by Carmel Valley Road on the south, Interstate 5 on the east to the northern junction of Portofino Circle and Portofino Drive, and Highway 101 (North Torrey Pines) on the west. The application will take place between 3 a.m. and 5 a.m. in the morning when the air is still and mosquitos are flying.

Pyrenone is a contact insecticide that kills adult mosquitos in an area. Multiple applications may be necessary to reduce mosquito numbers. The VCP will monitor adult mosquito numbers after the first day of treatment. Depending on the monitoring results, the pesticide application may be repeated on following days, and may be extended to additional streets north or south of the lagoon.

Are conditions worse in Los Penasquitos lagoon than elsewhere in the County?

The first detection of WNV in mosquitoes of 2016 occurred near Los Peñasquitos lagoon, therefore, the VCP is monitoring mosquito levels and WNV status very closely in this area and is taking steps to reduce the number of mosquitoes breeding in the lagoon. This includes applying granules to the waters in the lagoon to kill mosquito larvae but that are safe for people, pets, wildlife and fish. In addition, the VCP is monitoring the efforts of Los Penasquitos Lagoon Foundation to unplug the outlet of the lagoon which will significantly reduce the ability of mosquitoes to breed in the lagoon.

How do conditions around the Los Penasquitos lagoon area compare to previous years?

This early in the season, while the lagoon mouth is plugged, the lagoon contains freshwater that allows breeding by the species of mosquitoes that can transmit WNV. When mosquito numbers were high last year it was later in the year, with the lagoon mouth open, most of the mosquitoes were salt water species that cannot transmit WMV. Compared to normal lagoon conditions for this time of year, elevated numbers of mosquitoes have been found in mosquito traps placed in areas near the lagoon. Furthermore, WNV has been found in mosquitoes found in several of these traps. This has not occurred previously and is one of the factors for determining that an elevated risk to public health exists.

Will the pesticide affect the lagoon?

Pyrenone 25-5 can be toxic to fish and therefore will not be used over the lagoon itself. The VCP will follow all label instruction for the use of pyrenone, including precautions to minimize any drift of the pesticide toward the lagoon.